



Post COVID-19 recovery:

Hypertension pathway -
Support for clinical reviews

The following slides provide a guide for clinicians – e.g. GPs, nurses, clinical pharmacists – when reviewing patients with suboptimal blood pressure control

Review of patients with hypertension by a clinician can be augmented by remote consultation with **healthcare assistants & non-clinical staff** with appropriate training. For example, these staff can:

- Use online resources to teach blood pressure and pulse monitoring.
- Support patient education and self-management.
- Support lifestyle change (e.g. diet, physical activity, smoking cessation).

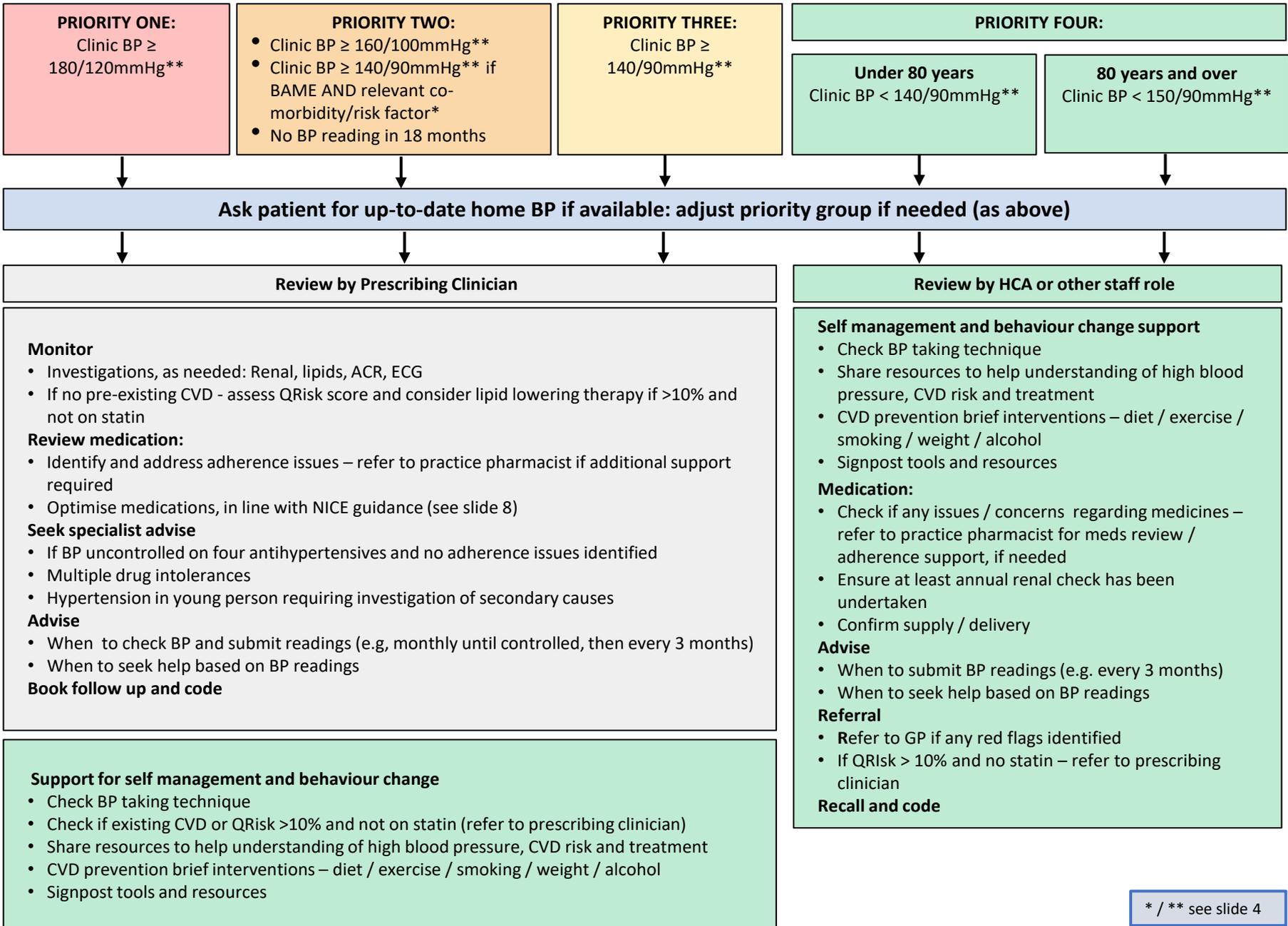
This will help ensure holistic care for the patient, while saving clinician time. UCLPartners is providing training and a range of resources to support these roles.

Content

- Hypertension pathway
- Overview of clinical review
- Resource links for patients and their carers

Training and development support is available from UCLPartners

High Blood Pressure Stratification and Management



* / ** see slide 4

* Co-morbidities / risk factors

- Established CVD (prior stroke/TIA, heart disease, peripheral arterial disease)
- Diabetes
- CKD 3 or more
- Obesity with BMI > 35

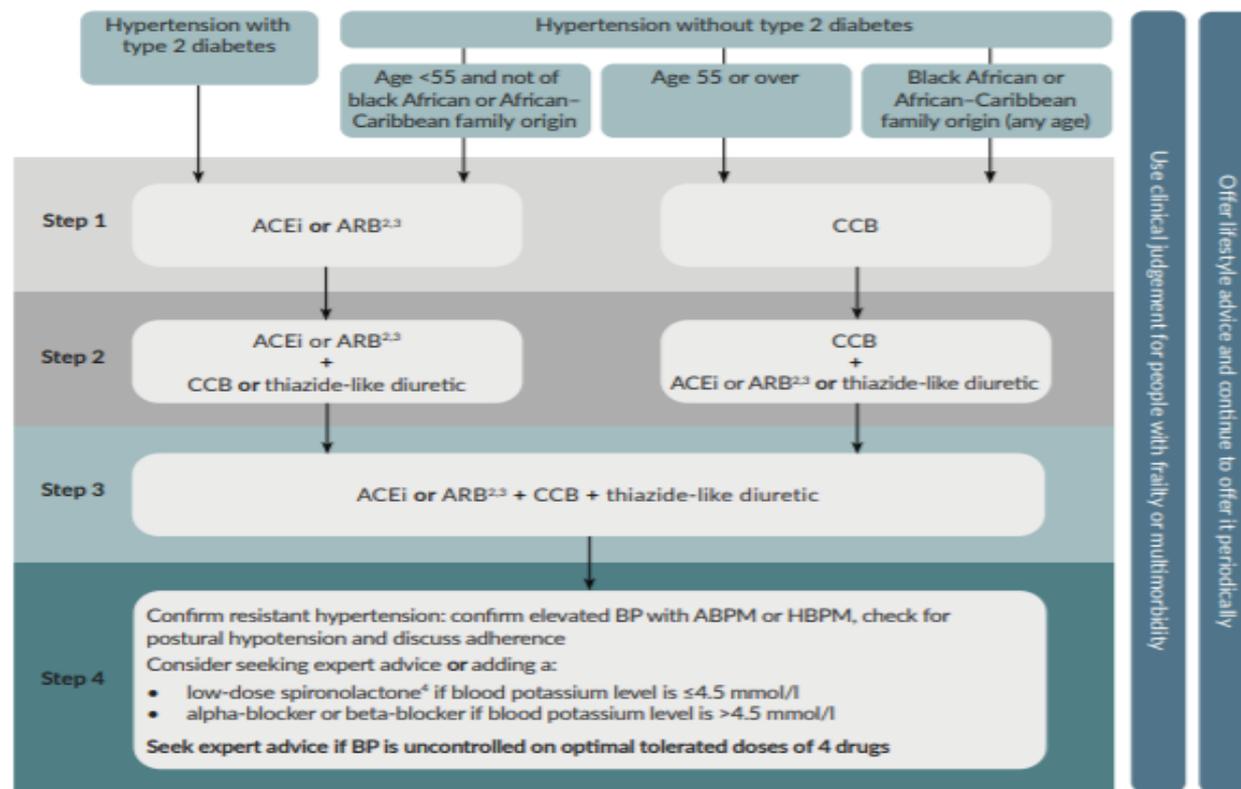
**Clinic vs Home BP readings

Clinic BP reading	Equivalent Home BP
BP = 180/120mmHg	BP = 170/115mmHg
BP = 160/100mmHg	BP = 150/95mmHg
BP = 150/90mmHg	BP = 145/85mmHg
BP = 140/90mmHg	BP = 135/85mmHg

***Snomed codes for home BP readings

- | | |
|---|---|
| <ul style="list-style-type: none"> • Average home bp – for use with home bp readings on a single day <ul style="list-style-type: none"> • 413606001 Average home systolic blood pressure • 413605002 Average home diastolic blood pressure | <ul style="list-style-type: none"> • Home BP multiple reading averaged <ul style="list-style-type: none"> • 314446007 Average day interval systolic blood pressure • 314461008 Average day interval diastolic blood pressure |
|---|---|

Choice of antihypertensive drug¹, monitoring treatment and BP targets



Monitoring treatment

Use clinic BP to monitor treatment.

Measure standing and sitting BP in people with:

- type 2 diabetes or
- symptoms of postural hypotension or
- aged 80 and over.

Advise people who want to self-monitor to use HBPM. Provide training and advice.

Consider ABPM or HBPM, in addition to clinic BP, for people with white-coat effect or masked hypertension.

BP targets

Reduce and maintain BP to the following targets:

Age <80 years:

- Clinic BP $< 140/90$ mmHg
- ABPM/HBPM $< 135/85$ mmHg

Age ≥ 80 years:

- Clinic BP $< 150/90$ mmHg
- ABPM/HBPM $< 145/85$ mmHg

Postural hypotension:

- Base target on standing BP

Frailty or multimorbidity:

- Use clinical judgement

¹For women considering pregnancy or who are pregnant or breastfeeding, see NICE's guideline on [hypertension in pregnancy](#). For people with chronic kidney disease, see NICE's guideline on [chronic kidney disease](#). For people with heart failure, see NICE's guideline on [chronic heart failure](#).

²See MHRA drug safety updates on [ACE inhibitors and angiotensin-II receptor antagonists: not for use in pregnancy](#), which states 'Use in women who are planning pregnancy should be avoided unless absolutely necessary, in which case the potential risks and benefits should be discussed'. [ACE inhibitors and angiotensin II receptor antagonists: use during breastfeeding](#) and [clarification: ACE inhibitors and angiotensin II receptor antagonists](#). See also NICE's guideline on [hypertension in pregnancy](#).

³Consider an ARB, in preference to an ACE inhibitor in adults of African and Caribbean family origin.

⁴At the time of publication (August 2019), not all preparations of spironolactone have a UK marketing authorisation for this indication.

Abbreviations: ABPM, ambulatory blood pressure monitoring; ACEi, ACE inhibitor; ARB, angiotensin-II receptor blocker; BP, blood pressure; CCB, calcium-channel blocker; HBPM, home blood pressure monitoring.



This visual summary builds on and updates previous work on treatment [published by the BIHS](#) (formerly BHS)

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Hypertension: core elements of clinical review

- Confirm diagnosis
- Assess CVD risk
- Advise lifestyle change and lipid lowering therapy [as per NICE](#)
- Use [NICE guidelines](#) to optimise blood pressure treatment
- Confirm adherence to medication and lifestyle goals
- Review if blood tests or Albumin-Creatinine Ratio due
- Signpost to online resources



Resources on high blood pressure and how to manage it:

- British Heart Foundation hub for managing blood pressure at home so patients can feel confident checking and managing their blood pressure at home. www.bhf.org.uk/bloodpressureathome
- Stroke Association: www.stroke.org.uk/what-is-stroke/are-you-at-risk-of-stroke/high-blood-pressure

Monitoring your blood pressure at home:

- How to check your blood pressure using a blood pressure machine (video) www.bhf.org.uk/information-support/heart-matters-magazine/medical/tests/blood-pressure-measuring-at-home
- How to measure your BP leaflet/poster: <https://bihsoc.org/wp-content/uploads/2017/11/BP-Measurement-Poster-Automated-2017.pdf>
- Step by step guide for patients on how to take BP: <https://bihsoc.org/wp-content/uploads/2017/09/How to instructional leaflet.pdf>
- Home monitoring diary for patients: <https://bihsoc.org/wp-content/uploads/2017/09/Home blood pressure diary.pdf>
- Validated BP monitors for home use: <https://bihsoc.org/bp-monitors/for-home-use/>
- How to choose a BP monitor www.bloodpressureuk.org/BloodPressureandyou/Homemonitoring/Choosingyourmonitor

How to assess pulse rhythm at home

- How to take your pulse video: www.bhf.org.uk/information-support/tests/checking-your-pulse
- Know Your Pulse Factsheet www.hearhythmalliance.org/resources/view/389/pdf
- What is an Arrhythmia? <http://hearhythmalliance.org/resources/view/522/pdf>



Diet:

- One You website www.nhs.uk/oneyou/for-your-body/eat-better/

Exercise:

- One You website www.nhs.uk/oneyou/for-your-body/move-more/
- “iPrescribe” app offers a tailored exercise plan by creating a 12-week exercise plan based on health information entered by the user. It then sets the duration and intensity of the exercise based on this information. www.nhs.uk/apps-library/iprescribe-exercise/ (free to download)
- Getting active around the home: tips, advice and guidance on how to keep or get active in and around the home from Sport England: <https://weareundefeatable.co.uk/> (free to access)
- Dance to health: Dance to Health - dance program for older people accessed online. (free to access). www.dancetohealth.org/Online_Session/Online_Sessions

Smoking cessation:

- ‘One You’ website www.nhs.uk/oneyou/for-your-body/quit-smoking/

Wellbeing and Mental Health:

- www.nhs.uk/oneyou/every-mind-matters/